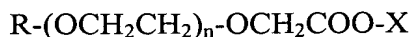


CLAIMS:

1. A lubricant concentrate comprising an effective lubricating amount of at least one ether carboxylate and at least one defoamer.
- 5 2. The lubricant concentrate of claim 1 wherein said at least one ether carboxylate has the following general formula:



- 10 where X is an alkali metal, amine, alkanolamine, ether diamine, ammonium salt or H (free acid), $R = C_8 - C_{20}$ and n is about 6 to about 18.
3. The lubricant concentrate of claim 1 wherein said at least one ether carboxylate is a C_{12} to C_{18} ether carboxylate.
4. The lubricant concentrate of claim 1 wherein said at least one ether carboxylate
15 is a C_{16} to C_{18} ether carboxylate.
5. The lubricant concentrate of claim 1 wherein said at least one foam destabilizer is an alkoxyated alcohol.
6. The lubricant concentrate of claim 5 wherein said at least one foam destabilizer is a C_8 to C_{16} alkoxyated alcohol.
- 20 7. The lubricant concentrate of claim 5 wherein said at least one foam destabilizer is a C_9 to C_{11} alkoxyated alcohol.
8. The lubricant concentrate of claim 5 wherein said at least one foam destabilizer is propoxyated.
9. The lubricant concentrate of claim 1, said ether carboxylate having about 3 to
25 about 20 moles ethoxylation.
10. The lubricant concentrate of claim 1, said ether carboxylate having about 5 to about 15 moles ethoxylation.
11. The lubricant concentrate of claim 1 wherein said ether carboxylate has 10 moles of ethoxylation.
- 30 12. The lubricant concentrate of claim 1, said ether carboxylate having about 3 to about 20 moles propoxylation.
13. The lubricant concentrate of claim 1, said ether carboxylate having about 2 to about 10 moles propoxylation.

14. The lubricant concentrate of claim 1, said ether carboxylate having about 5 to about 15 moles ethoxylation and about 2 to about 10 moles propoxylation.

15. The lubricant concentrate of claim 1 wherein said ether carboxylate is present at a concentration of about 0.1 wt-% to about 75 wt-%.

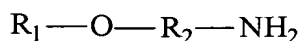
5 16. The lubricant concentrate of claim 1, wherein said ether carboxylate is present at a concentration of about 0.25 to 50 wt-%.

17. The lubricant concentrate of claim 1, wherein said ether carboxylate is present at a concentration of about .5 wt-% to about 15 wt-%.

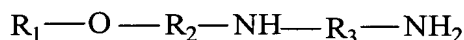
10 18. The lubricant concentrate of claim 1 further comprising at least one corrosion inhibitor.

19. The lubricant concentrate of claim 18 wherein said at least one corrosion inhibitor which is an ether diamine, a dicarboxylic acid or salt thereof, at least one amine oxide, or mixtures thereof.

15 20. The lubricant concentrate of claim 19 wherein said ether diamine is selected from the group consisting of



and



and mixtures thereof, wherein R_1 may be linear C_6 - C_{18} , R_2 may be a linear or branched C_1 - C_8 alkyl, and R_3 is a linear or branched C_1 - C_8 alkyl group.

20 21. The lubricant concentrate of claim 19 wherein said at least one ether diamine is selected from the group consisting of isododecyloxypropyl-1,3-diamino propane, dodecyloxypropyl-1,3-diamino propane, tetradecyloxypropyl-1,3-diamino propane, isotridecyloxypropyl-1,3-diaminopropane and mixtures thereof.

22. The lubricant concentrate of claim 19 wherein said at least one ether diamine is a mixture of dodecyloxypropyl-1,3-diaminopropane and tetradecyloxypropyl-1,3-diaminopropane.

23. The lubricant concentrate of claim 19 wherein said dicarboxylic acid or salt thereof has the following general formula:

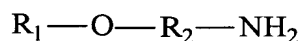
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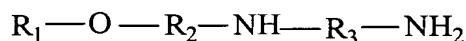
where R is an alkyl group having from about 1 to about 8 carbon atoms.

24. The lubricant concentrate of claim 23 further in combination with an ether amine or diamine having the following general formula:

5



and



and mixtures thereof, where R_1 is linear C_6 - C_{18} , R_2 is linear or branched C_1 - C_8 alkyl, and R_3 is linear or branched C_1 - C_8 alkyl group.

10 25. The lubricant concentrate of claim 24 further comprising at least one phosphonated amine oxide.

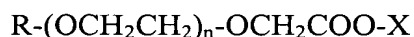
26. The lubricant concentrate of claim 1 further comprising at least one member selected from the group consisting of surfactants, hydrotropes, antimicrobial agents, viscosity modifiers, soil anti-redeposition agents, preservatives, dyes, fragrances, anti-foaming agents, soil suspension agents, solubilizing agents, penetrants, and mixtures thereof.

27. The lubricant concentrate of claim 1, further diluted with water to a concentration of about 0.1 wt-% to about 10 wt-% of said concentrate in water.

28. The lubricant concentrate of claim 1, further diluted with water to a concentration of about 0.4 wt-% to about 10 wt-% of said concentrate in water.

29. A lubricated conveyor or container, having a lubricant coating on a container-contacting surface of the conveyor or on a conveyor-contacting surface of the container, wherein the coating comprises the lubricant composition of claim 1.

30. An aqueous conveyor lubricant composition comprising from about 0.1 wt-% to about 50 wt-% of at least one ether carboxylate having the following general formula:

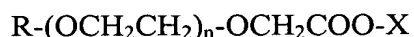


where X is an alkali metal, amine, alkanolamine, ether diamine, ammonium salt or H (free acid), $R = C_{12}$ - C_{18} , and n is about 6 to about 1, and at least one foam destabilizer.

31. The aqueous conveyor lubricant of claim 30 wherein $R = C_{16}-C_{18}$.
32. The aqueous conveyor lubricant of claim 30 wherein said at least one foam destabilizer is an alkoxyated alcohol.
33. The aqueous conveyor lubricant of claim 32 wherein said at least one foam destabilizer is a C_8 to C_{16} alkoxyated alcohol.
34. The aqueous conveyor lubricant of claim 32 wherein said at least one foam destabilizer is a C_9 to C_{11} alkoxyated alcohol.
35. The aqueous conveyor lubricant of claim 30, said ether carboxylate having about 3 to about 20 moles alkoxylation.
36. The aqueous conveyor lubricant of claim 30, said ether carboxylate having about 5 to about 15 moles alkoxylation.
37. The aqueous conveyor lubricant of claim 36, said ether carboxylate having ethoxylation, propoxylation or both.
38. The aqueous conveyor lubricant of claim 30 wherein said ether carboxylate has 10 moles of ethoxylation.
39. The aqueous conveyor lubricant of claim 30 comprising .5 wt-% to 15 wt-% of said ether carboxylate.
40. The aqueous conveyor lubricant of claim 30 further comprising at least one corrosion inhibitor.
41. The aqueous conveyor belt lubricant composition of claim 40, said at least one corrosion inhibitor is an ether diamine, a dicarboxylic acid or salt thereof, an amine oxide, or mixture thereof.
42. The aqueous conveyor lubricant of claim 30 further comprising at least one member selected from the group consisting of preservatives, surfactants, hydrotropes, antimicrobial agents, viscosity modifiers, soil anti-redeposition agents, dyes, fragrances, soil suspension agents, solubilizing agents, penetrants, and mixtures thereof.
43. The aqueous conveyor lubricant of claim 30 further diluted with water to a concentration of about 0.1 wt-% to about 10 wt-% of said lubricant in water.
44. A method of lubricating the interface between a container and a moving conveyor surface, the method comprising the steps of:
- a) providing a lubricant composition comprising at least one ether carboxylate lubricant and at least one foam destabilizer; and
 - b) applying said lubricant composition to said conveyor surface.

45. The method of claim 44 wherein said applying step comprises applying said lubricant composition to said conveyor by means of a plurality of spray nozzles spaced along said conveyor system.
46. The method of claim 44 wherein said lubricant composition is in the form of a concentrate.
47. The method of claim 46 further comprising the step of diluting said concentrate with water at a ratio of about 1 to about 1000 parts water to 1 part concentrate.
48. The method of claim 46 further comprising the step of diluting said concentrate with water at a ratio of about 1 to about 500 parts water to about 1 part concentrate.
49. The method of claim 44, said ether carboxylate having the following general formula:
- $$\text{R}-(\text{OCH}_2\text{CH}_2)_n-\text{OCH}_2\text{COO}-\text{X}$$
- where X is an alkali metal, amine, alkanolamine, ether diamine, ammonium salt or H (free acid), R = C₁₂-C₁₈, and n is about 6 to about 1, and at least one foam destabilizer.
50. The method of claim 49 wherein R = C₁₆-C₁₈.
51. The method of claim 44, said ether carboxylate present at a concentration of about 0.5 wt-% to about 15 wt-%.
52. The method of claim 44, said at least one foam destabilizer is an alkoxyated alcohol.
53. The method of claim 52 wherein said at least one foam destabilizer is a C₈ to C₁₆ alkoxyated alcohol.
54. The method of claim 52 wherein said at least one foam destabilizer is a C₉ to C₁₁ alkoxyated alcohol.
55. The method of claim 52, said at least one foam destabilizer is propoxylated.
56. The method of claim 44 wherein said lubricant composition further comprises at least one ether diamine, at least one dicarboxylic acid or salt thereof, or mixtures thereof.
57. A method of lubricating a conveyor system comprising the steps of :
- diluting a lubricant concentrate with water to form an aqueous lubricant use-solution comprising an effective lubricating amount of at least one ether carboxylate and foam destabilizer; and
 - applying said lubricant use-solution composition to the intended surface of use.

58. The method of claim 57, said ether carboxylate having the following general formula:



5 where X is an alkali metal, amine, alkanolamine, ether diamine, ammonium salt or H (free acid), R = C₁₂–C₁₈, and n is about 6 to about 1.

59. The method of claim 58 wherein R = C₁₆–C₁₈.

60. The method of claim 57, said foam destabilizer is an alkoxylated alcohol.

61. The method of claim 60, said at least one foam destabilizer is a C₈ to C₁₆
10 alkoxylated alcohol.

62. The method of claim 60, said at least one foam destabilizer is a C₉ to C₁₁ alkoxylated alcohol.

63. The lubricant concentrate of claim 60, said at least one foam destabilizer is propoxylated.

15 64. The method of claim 57, said lubricant concentrate further comprising at least one corrosion inhibitor.

65. The method of claim 64, said corrosion inhibitor comprising at least one ether diamine, at least one dicarboxylic acid or salt thereof, amine oxide or mixtures thereof.

66. The method of claim 57 further comprising the step of diluting said lubricant
20 concentrate with water to a concentration of about 0.1 to about 10 wt-% of said lubricant concentrate in water.

67. A method for lubricating a continuously-moving conveyor system for transporting packages said conveyor system is wetted with an aqueous lubricant composition comprising at least one ether carboxylate lubricant and at least one foam
25 destabilizer.

68. The method of claim 67, said foam destabilizer is an alkoxylated alcohol.

69. The method of claim 67 further comprising at least one corrosion inhibitor.

70. The method of claim 69, said corrosion inhibitor comprising at least one ether diamine, at least one dicarboxylic acid or salt thereof, amine oxide or mixtures thereof.